

LUCCSI, K.; SALI, J.

LUCCSI, K.; SALI, J. Practice of preparing the complex plan in the hemp, jute,
and textile industry. p. 24.

Vcl. 1C, No. 1, Jan. 1956

TÓEFTERMELES.

TECHNOLCGY

BUDAPEST, HUNGARY

So: East European Accession, Vol. 5, No. 5, May 1956

Lugosi, K.

Modernization of the preparatory department of jute spinning mills. p.352

MAGYAR TEXTILTECHNIKA. (Textilipari Muzsaki es Tudomanyos Egyesulet)
Budapest, Hungary. Vol.11, no.9, September 1959

Monthly List of East European Accessions (EEAI) LC, Vol.8, no.11
November 1959
Uncl.

LUGOSI, Karoly, okleveles gepeszmernek

Correlations among productivity, loading and machine efficiency
at multiple-machine systems. Magy textil 14 no.6:270-280
Je '62.

LUGOSI, Karoly

Remark about Gyorgy Paranyi's article entitled "Analytic distribution
of working time and its significance." Munka szemle 5 no.8:20-21 Ag
'61.

FRANK, Tibor; SZASZ, Marton; MARK, Ferenc; BOSNYAK, Tamas; LUGOSI, Karoly;
FEKETE, Istvan; TOMPOS, Karoly; KABDEBO, Kornel; JAVOR, Bela; SCHEFTSIK,
Jeno; VOGL, Ferenc; REITER, Gyorgy

Conference on the current tasks of the light industry workers. Munka
szemle 5 no.3:5-7 Mr '61.

1. Textilipari Muszaki Tudomanyos Egyesulet Ipargazdasagi Szakosztalya titkara (for Frank).
2. Kispesti Textilgyar munkauggyi osztaly vezetoje (for Mark).
3. Konnyuiipari Miniszterium Munkauggyi es Oktatasi Onallo Osztalya vezetoje (for Szasz).
4. Ujpesti Gyapjuszovogyar munkauggyi osztalya vezetoje (for Bosnyak).
5. Kender Juta es Textil Ipar munkauggyi osztaly vezetoje (for Lugosi).
6. Kobanyai Textilgyar munkauggyi osztalya vezetoje (for Fekete).
7. Konnyuiipari Miniszterium Pamutipari Igazgatosaga munkauggyi osztaly vezetoje (for Tompos).
8. Magyar Pamutipar munkauggyi osztalya vezetoje (for Kabdebo).
9. Majus 1 Ruhagyár munkauggyi osztalya vezetoje (for Javor).
10. Konnyuiipari Miniszterium Len-Kenderipari Igazgatosaga munkauggyi osztalya vezetoje (for Scheftsi).
11. Ruhaipari Tervezo Vallalat (for Vogl).
12. Goldberger Textilmuvek munkauggyi osztaly vezetoje (for Reiter).

SZABO, I.; LUGOSI, L.

Difficulties in the type differentiation of *M. tuberculosis*
due to the influence of isoniazid. Acta microb. hung. 3 no.
3:269-275 1956.

1. Diagnostisches Laboratorium des Koranyi-Institutes fur
Tuberkulose.

(MYCOBACTERIUM TUBERCULOSIS, eff. of drugs on
isoniazid, difficulties in type differentiation. (Ger))

(NICOTINIC ACID ISOMERS, eff.

isoniazid, on *M. tuberc.*, difficulties in type
differentiation. (Ger))

SZABO, Istvan, dr.; LUGOSI, Laszlo, dr.

Difficulties in the type determination of INH resistant *Mycobacterium tuberculosis*. *Tuberk. kerdessei* 9 no.1:35-38 Feb 56.

1. Az Orszagos Koranyi Tbc Intezet Diagnosztikai Laboratoriumnak
kozlemenye.

(*MYCOBACTERIUM TUBERCULOSIS*

isoniazid resistant strains, difficulties in
differentiation from *M. tuberc. bovis* in type determ.
(Hun))

EXCERPTA MEDICA Sec 15 Vol 13/2 Chest Dis. Feb 50

464. THE METHOD OF CULTURING M. TUBERCULOSIS WITH THE USE OF
FREEZE-DRIED LOEWENSTEIN-JENSEN MEDIUM - Lugosi L. Bac-
teriol. Dept., Nat. Inst. for Tb. 'Korányi', Budapest - ACTA TUBERC. SCAND.
1958, 36/4 (242-248) Tables 4

The Loewenstein-Jensen medium was prepared as approved on by the International Tuberculosis Union and freeze-dried in vacuum. The dried substance was dissolved in water to its original volume, divided into test tubes, and coagulated in the usual manner. Parallel with this, control cultures were grown on media prepared as described, on ordinary Loewenstein media, and on Sula media. Three strains of tb bacilli were used. The freeze-dried medium appeared to be at least as good, or may be even somewhat better than the Loewenstein-Jensen medium. According to the author, this examination is of practical significance because the central laboratories and drug factories can send the freeze-dried medium to smaller establishments. Moreover, freeze-dried medium may be preserved even for long periods of time.

Salmenkallio - Preitila (XV, 4*)

IUGOSI, Laszlo, Dr.

Bacteriological diagnostic activities in the field of tuberculosis
in Hungary during 1957. Tugerkulozis 12 no.7:159-161 July 59.

1. Az Orszagos Koranyi Tbc. Intezet (igazgato: Boszormenyi Miklos dr.
kandidatus tudomanyos vezeto: Foldes Istvan dr. kandidatus) Diag-
nosztikai Laboratoriumnak (osztalyvezeto: Szabo Istvan dr.) kozlemenye.
(TUBERCULOSIS, prev. & control)

LUGOSI, Laszle, Dr.

Comparative evaluation of animal inoculation of cultivation of discharges from tuberculous patients. Tuberkulozis 12 no.8:176-178 Aug 59.

1. Az Orszagos Koranyi Tbc. Intezet (igazgato: Boszormenyi Miklos dr. kandidatus, tudomanyos vezeto: Foldes Istvan dr. kandidatus) Diagnoszikai Laboratoriumnak (osztalyvezeto: Szabo Istvan dr.) kozlemenye.
(TUBERCULOSIS, diagnosis)

LUGOSI, Laszlo, dr.; SZABO, Istvan, dr.

Comparative evaluation of multiple cultivation of tubercle
bacilli on Löwenstein-Jensen and modified Sula culture media.
Tuberkulozis 12 no.11:253-257 N '59.

1. Az Orszagos Koranyi Tbc Intezet (igazgato: Boszormenyi Miklos dr.
kandidatus, tudomanyos vezeto: Foldes Istvan dr. kandidatus)
Diagnosztikai Laboratoriumnak (osztalyvezeto: Szabo Istvan dr.)
kozlemenye.

(MYCOBACTERIUM TUBERCULOSIS culture)

LUGOSI, Laszlo, dr.

Cultivation of Mycobacterium tuberculosis on freeze-dried
Lowenstein-Jensen medium. Tuberkulozis 12 no.12:278-282
D '59.

1. Az Orszagos Koranyi Tbc Intezet (igazgato: Boszormenyi
Miklos dr., kandidatus, tudomanyos vezeto: Foldes Istvan dr.
kandidatus) Diagnosztikai Laboratoriumnak (osztalyvezeto:
Szabo Istvan dr.) kozlemenye.
(MYCOBACTERIUM TUBERCULOSIS culture)

EXCERPTA MEDICA Sec 4 Vol 13/6 Med. Micro. June 60

2058. THE CAPACITY OF SAPROPHYtic MYCOBACTERIA TO TOLERATE H₂O₂ (INDICATED BY CHANGE IN OXIDATION-REDUCTION POTENTIAL) AND ITS CONNECTION WITH SENSITIVITY TO ISONIAZID AND CATALASE ACTIVITY - La capacité des mycobactéries saprophytes de tolérer H₂O₂ (indiquée par le changement du potentiel d'oxydo-réduction) et ses rapports avec leur sensibilité à l'INH et leur activité catalasique - Lugosi L. Inst. Nat. de Tb 'Koranyi', Serv. de Bactériol., Budapest - ANN. INST. PASTEUR 1959, 07/4 (597-608) Graphs 4 Tables 1

Saprophytic Myc. friburgensis, Myc. phlei and Myc. pellegrino were studied. Catalase activity was determined according to the principles of the kinetics of the enzymatic reaction, and the capacity to tolerate H₂O₂, followed by means of the change in oxidation-reduction potential observed during growth. It was found that there was no close relation between the degree of natural resistance to isoniazid and the catalase activity. The strains resisted the toxic effect of H₂O₂ well.

LUGOSI, Laszlo, dr.

Historical data on BCG vaccination in Hungary. Gyermekgyogyaszat
14 no.11:323-328 N '63.

1. Az Orszagos Kozegeszegugyi Intezet (foigazgato: Bakacs
Tibor dr. egyetemi tanar, csoportvezeto: Zoltai Nandor dr.,
osztalyvezeto: Ujhelyi Karoly dr.) BCG Laboratoriumanak
(laboratorium vezeto: Lugosi Laszlo dr.) kozlemenye.
(BCG VACCINATION) (LEGISLATION, MEDICAL)

LUGOSI, Laszlo, dr.

Changes in the technology of BCG vaccine production in
Hungary. Gyermekgyogyaszat 14 no.11:328-334 N '63.

1. Az Orszagos Kozegeszsegugyi Intezet (foigazgato: Bakacs
Tibor dr. egyetemi tanar, csoportvezeto: Zoltai Nandor dr.,
osztalyvezeto: Ujhelyi Karoly dr.) BCG Laboratoriumnak,
(laboratorium vezeto: Lugosi Laszlo dr.) kozlemenye.
(FREEZE DRYING) (BCG VACCINATION)
(TUBERCULOSIS IN CHILDHOOD) (DRUG INDUSTRY)

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001030720007-1

LUGOSI, Laszlo, dr.

The future of tuberculosis. Elet tud 19 no.1:28-31 3 Ja '64.

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001030720007-1"

LUGOSI, L.; LEVY, F.-M.

Comparative study of BCG strains from Paris and Budapest.
Acta microbiol. acad. sci. Hung. 11 no.4:391-397 '64-'65.

1. Institut d'Hygiène Publique (Directeur General: T. Bakacs),
Budapest et Centre International de l'Enfance (Directeur
General: E. Berthet), Paris.

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001030720007-1

LUGOSY, Istvan

Simple resection calculations. Sheet Kart 16 no.4,457-253 '64.

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001030720007-1"

S/133/61/000/003/006/014
A054/A033

AUTHORS: Snezhko, P. F., Candidate of Technical Sciences; Lugotsev,
I.V., Engineer; Snezhko, P. F., Engineer

TITLE: Improving the technology of ferro-boron aluminum melting

PERIODICAL: Stal', no. 3, 1961, 239

TEXT: Reclaiming the greatest possible amount of boron from boron-ores is a major problem of the boron steel melting process, because the metal is found only in limited quantities. The alumino-thermal, "outside-the-furnace" method applied so far, with previous calcination of the ore at 750 - 900°C to remove moisture, did not yield more than 45 - 48 % boron. Tests revealed that the yield of boron was greatly affected by the amount of iron ore in the charge and the quality of calcination which is characterized by the amount of residual moisture. Reduction of the moisture content of boron ores to 0.45 % increased the amount of boron obtained to 68.6 % and lowered the specific consumption of pure aluminum per ton of 5 % ferroboron to 520 kg. Reduction of the residual moisture of the ore indirectly increases the amount of boron oxides and that of boron in the finished metal. ✓

Card 1/4

S/133/61/000/003/006/014
A054/A033

Improving the technology of

If, however, the iron ore content of the charge is increased from 75 to 120 kg, the amount of boron obtained decreases from 61 to 42 %. This lower yield is due to the dilution of boron oxides by the iron ore in the charge, while the increase in aluminum consumption is the result of the reduction of the additional amount of iron oxides. In the "outside-the-furnace" method a considerable amount of boron and aluminum is contained in small particles of the ore, which mix with the slag, so that only part of all the boron is transferred to the casting. This loss can be prevented by causing these small ore-particles to settle with the aid of a ferro-thermic precipitating agent (also containing aluminum powder and lime), which is added to the charge when the melting is finished. Under the effect of the precipitating agent numerous drops of iron originate which absorb the boron-containing particles and take them, through the slag layer, into the cast metal. The additional heat produced during this reaction prolongs the liquid condition of the slag and this also contributes to the complete precipitation of the boron particles. The use of a precipitating agent containing 18.3 kg iron ore for one charge increase the amount of boron obtained by 71 %, while the aluminum consumption decreases to 430 kg per

Card 2/4

Improving the technology of

S/133/61/000/003/006/014
A054/A033

ton of 5 % ferro-boron. There are 2 figures.

ASSOCIATION: Novolipetskiy metallurgicheskiy zavod (Novolipetsk Metallurgical Plant)

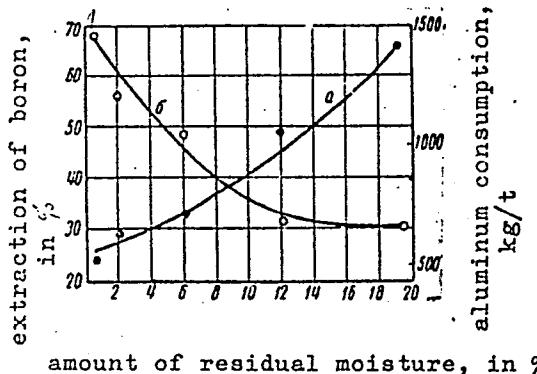


Figure 1: Effect of residual moisture in boron ore on the extraction of boron (b, %) and on the aluminum consumption, (a, kg/t of 5 % ferro-boron) at the semi-industrial melting of ferro-boron.

Card 3/4

Improving the technology of

S/133/61/000/003/006/014
A054/A033

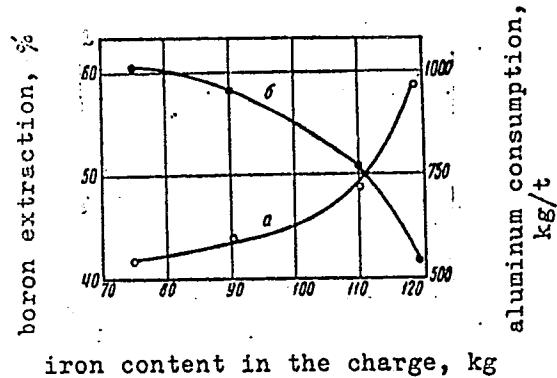


Figure 2: Effect of iron ore content of the charge on the parameters of melting ferro-boron, (a, pure aluminum consumption, kg/t of 5% ferro-boron), (b, boron extraction).

Card 4/4

LUGOV, D.

Lens shades for reflex cameras. Sov.foto 21 no.10:30-31 0 '61.
(MIRA 14:10)
(Photography--Equipment and supplies)

LUGOV, D.

Protective tube for long-length photographic lenses. Sov.foto
22 no.9:39 S '62. (MIRA 15:8)
(Lenses, Photographic)

LUGOV, S.F.

Effect of assimilation on the ore potential of Chukchi tin-bearing intrusions [with summary in English]. Sov. geol. 1 no.10:13-14 O '58.
(MIRA 12:3)

1. Ministerstvo geologii i okhrany nadr SSSR.
(Chukchi National Area--Ore deposits)

LUGOV, Sergey Filippovich; MIRZOYEVA, M.D., red.izd-va; BYKOVA, V.V.,
tekhn.red.

[What minerals are and methods of prospecting for them] Chto
takoe poleznye iskopaemye i uslovia ikh poiskov. Moskva, Gos.
nauchno-tekhn.izd-vo lit-ry po geologii i okhrane nedr, 1959.
34 p. (MIRA 13:3)

(Mineralogy) (Prospecting)

LUGOV, S.F.

Determining the age of Chukchi granitoids by the argon method and
geological observations. Sov. geol. 2 no.5:142-148 My '59.
(MIRA 12:8)

1. Ministerstvo geologii i okhrany nedor SSSR.
(Chukchi Peninsula--Granite)

LUGOV, S.F.

Mesozoic granitoids in the Chukchi National Area and the
mineralization associated with them. Sov.geol. 2 no.10:
48-66 O '59. (MIRA 13:4)

1. Ministerstvo geologii i okhrany nadr SSSR.
(Chukchi National Area--Granite)

LUGOV, S.F.; ROZHKOVA, L.G., red.izd-va; BYKOVA, V.V., tekhn. red.

[Where and how to search for tungsten ores] Gde i kak iskat' vol'framovuiu rudu. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geol. i okhrane nedr SSSR, 1960. 28 p. (MIRA 15:3)
(Tungsten ores) (Prospecting)

LUGOV, S.F.

Results of geological field trips of 1959 and their importance
for setting up prospecting plans. Razved.i okhr.nedr 26
no.5:16-19 My '60. (MIRA 13:7)

1. Ministerstvo geologii i okhrany nedr SSSR.
(Prospecting)

KOTLYAR, Vasiliy Nikitich; BETEKHTIN, A.G., retsenzent; TATARINOV, P.M. retsenzent; YAKZHIN, A.A., retsenzent; KRASNIKOV, V.I., retsenzent; GOTMAN, Ya.D., retsenzent; ARAPOV, Yu.A., retsenzent; LU-GOV, S.F., red.; OVCHINNIKOVA, S.V., red. izd-va; BYKOVA, V.V., tekhn. red.

[Geology and genetic types of industrial uranium deposits] Geologija i geneticheskie tipy promyshlennyykh mestorozhdenii Urala. Moskva, Gos. nauchno-tehn. izd-vo lit-ry po geol. i okhrane nedr, 1961. 245 p.

(Uranium)

(MIRA 14:10)

ATMANOV, A.V.; LUGOV, S.F.; FEYGIN, Ya.M.

New data on the geology of the Lovozero Massif. Sov.geol.
4 no.2:55-67 F '61. (MIRA 14:10)

1. Ministerstvo geologii i okhrany nedr SSSR.
(Lovozero Tundras—Geology)

LUGOV, S.F.; BUDNIKOV, N.P.; TYZHNOV, A.V.

Some results of the scientific technological conference on
methods of prospecting for mineral deposits. Sov. geol. 4
no.4:149-157 Ap '61. (MIRA 14:5)

1. Ministerstvo geologii i okhrany nedr SSSR.
(Prospecting--Congresses)

LUGOV, S.F.

Importance of geological field trips. Sov.geol. 4 no.11:171-174
N '61. (MIRA 14:11)

1. Ministerstvo geologii i okhrany nadr SSSR.
(Geology--Field work)

LUGOV, S.

Positive results of a geological expedition is an important factor
in increasing the efficiency of geological prospecting. Cact,
nefti i gaza 5 no.10:58-59 O '61. (MIRA 14:9)
(Prospecting)

LJUGOV, S.F.

Results of the technical conference on geological prospecting
for nickel in Krasnoyarsk Territory. Sov.geol. 5 no.1:181-184
Ja '62. (MIRA 15:2)
(Krasnoyarsk Territory--Nickel)

LUGOV, S.F.

Kiyviveyemo-Gyrgychan ore center and its geological features.
Sov.geol. 5 no.4:28-39 Ap '62. (MIRA 15:4)

1. Ministerstvo geologii i okhrany nadr SSSR.
(Chukchi National Area--Ore deposits)

LUGOV, Sergey Filippovich; KROTOVA, I.Ye., red.izd-va; SHMAKOVA,
T.M., tekhn. red.

[How to search for tin]Kak iskat' olovo. Izd.2. Moskva,
Gosgeoltekhizdat, 1962. 25 p. (MIRA 15:10)
(Tin) (Prospecting)

LUGOV, S.F.; KROTOVA, I.Ye., red. izd-va; SHIMAKOVA, T.M., tekhn.
red.

[How to prospect for tungsten] Kak iskat' vol'fram. Izd.2.
Moskva, Gosgeoltekhnizdat, 1962. 29 p. (MIRA 15:8)
(Tungsten ores) (Prospecting)

LUGOV, Sergey Filippovich; GRIGOR'YEV, I.F., red.; KOLOSHINA, T.V.,
red. izd-va; GUROVA, O.A., tekhn. red.; BYKOVA, V.V., tekhn.
red.

[Basic characteristics of the geology and metal potential in the
Chukchi National Area] Osnovnye cherty geologicheskogo stroeniia
i metallonosnosti Chukotki. Moskva, Gosgeoltekhnizdat, 1962.
225 p.

(MIRA 15:5)

(Chukchi National Area--Geology, Economic)

KOTLYAR, V.N.; LUGOV, S.F.

Interdepartmental conference on "Ore potential of volcanic formations." Geol. rud. mestorozh. 5 no.5:100-102 S-0 '63.
(MIRA 16:11)

YEROFEYEV, B. N.; LUGOV, S. F.

Okhotsk-Chukchi volcanic belt, its metal potential, and
prospecting problems. Sov. geol. 5 no.10:3-15 0 '62.
(MIRA 15:10)

1. Ministerstvo geologii i okhrany nedor SSSR.

(Okhotsk region—Ore deposits)
(Chukchi Peninsula—Ore deposits)

LUGOV, S.F.

Genetic types of tin-tungsten mineralization in the Chukchi National Area and their commercial significance. Sov.geol. 6 no.4:85-98 Ap '63.
(MIRA 16:4)

1. Gosudarstvennyy geologicheskiy komitet SSSR.
(Chukchi National Area—Tin ores)(Chukchi National Area—Tungsten ores)

KOTLYAR, V.N.; LUGOV, S.F.

Interdepartmental conference on "Ore potential of volcanic formations." Sov. geol. 6 no.10:139-143 O '63. (MIRA 17:1)

l. Gosudarstvennyy geologicheskiy komitet i Moskovskiy institut stali.

BELYAYEVSKIY, N.A., red.; ALI-ZADE, A.A., red.; ALIYEV, M.M., red.;
BAKIROV, A.A., red.; BELOUSOV, V.V., red.; BEUS, A.A., red.;
BOGDANOV, A.A., red.; BORISOV, A.A., red.; BRENNER, M.M.,
red.; DYUKOV, A.I., red.; YERSHOV, A.D., red.; ZARIDZE, G.M.,
red.; KALUGIN, A.S., red.; KOSOV, B.M., red.; KOPTEV-
DVORNIKOV, V.S., red.; KOTLYAR, V.N., red.; LUGOV, S.F., red.;
MAGAK'YAN, I.G., red.; MARINOV, N.A., red.; MARKOVSKIY, A.P.,
red.; MALINOVSKIY, F.M., red.; PUSTOVALOV, L.V., red.; SATPAYEV,
K.I., red.; SEMENENKO, N.P., red.; TYZHNOV, A.V., red.;
KHRUSHCHOV, N.A., red.; SHCHEGOLEV, D.I., red.; YAMMOYUK, V.A.,
red.

[Materials on regional tectonics of the U.S.S.R.] Materialy po
regional'noi tektonike SSSR. Moskva, Izd-vo "Nedra," 1964. 193 p.
(MIRA 17:4)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy geologicheskiy ko-
mitet.

BYBOCHKIN, Aleksey Mironovich; LUGOV, S.F., nauchn. red.;
SOLOMATINA, Z.D., ved. red.

[Tungsten deposits and the characteristics of their
distribution] Mestorozhdeniya vol'frama i zakonomerno-
sti ikh razmeshcheniya. Moskva, Nedra, 1965. 235 p.
(MIRA 19:1)

KOTLYAR, V.N., doktor geol.-miner. nauk, prof., red.; APEL'TSIN,
F.Ye., doktor geol.-miner. nauk, red.; YEROFEYEV, B.N.,
kand. geol.-miner. nauk, red.; LUGOV, S.F., doktor geol.-
miner. nauk, red.; FOGL'MAN, N.A., kand. geol.-miner.
nauk, red.; KHRUSHCHOV, N.A., doktor geol.-miner. nauk, red.

[Materials of the Interdepartmental Conference on the Prob-
lem "The Ore Potential of Volcanic Formations"] Materialy
Mezhvedomstvennogo soveshchaniia po probleme "Rudonosnost'
vulkanogennykh formatsii." Moskva, Nedra, 1965. 324 p.
(MIRA 18:6)

1. Mezhvedomstvennoye soveshchaniye po probleme "Rudonosnost'
vulkanogennykh formatsiy," Moskva, 1963.

LUGOV, Sergey Filippovich; APEL'TSIN, F.R., nauchn. red.

[Geological characteristics of the tin-tungsten mineralization of the Chukchi National Area and prospecting problems] Geologicheskie osobennosti oloviano-volframovogo rudneniya Chukotki i voprosy poiskov. Moskva, Nedra, 1965. 335 p. (MIRA 18:7)

LUGOV, S.F.

Problems facing geologists in connection with tin
prospecting. Razved. i okh.nedr 31 no.4:6-11 Ap '65.
(MIRA 19:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut
mineral'nogo syr'ya.

SHVARTSER, A. Ya.; GOLUB, I. Ya.; LUGOVAYA, G. V.

Powder metal lamellar electrodes for electric slag hard facing.
Avtom. svar. 15 no.11:71-76 N '62. (MIRA 15:10)

1. Donetskij politekhnicheskiy institut.

(Hard facing) (Metal powder products)

SHVARTSER, A.Ya., inzh.; SHAPOVALOV, S.I., kand.tekhn.nauk; LUGOVAYA, G.V.,
inzh.; GLAZUNOV, F.A., inzh.; TKACHENKO, V.A., inzh.; MOZNAIM,
G.I., inzh.

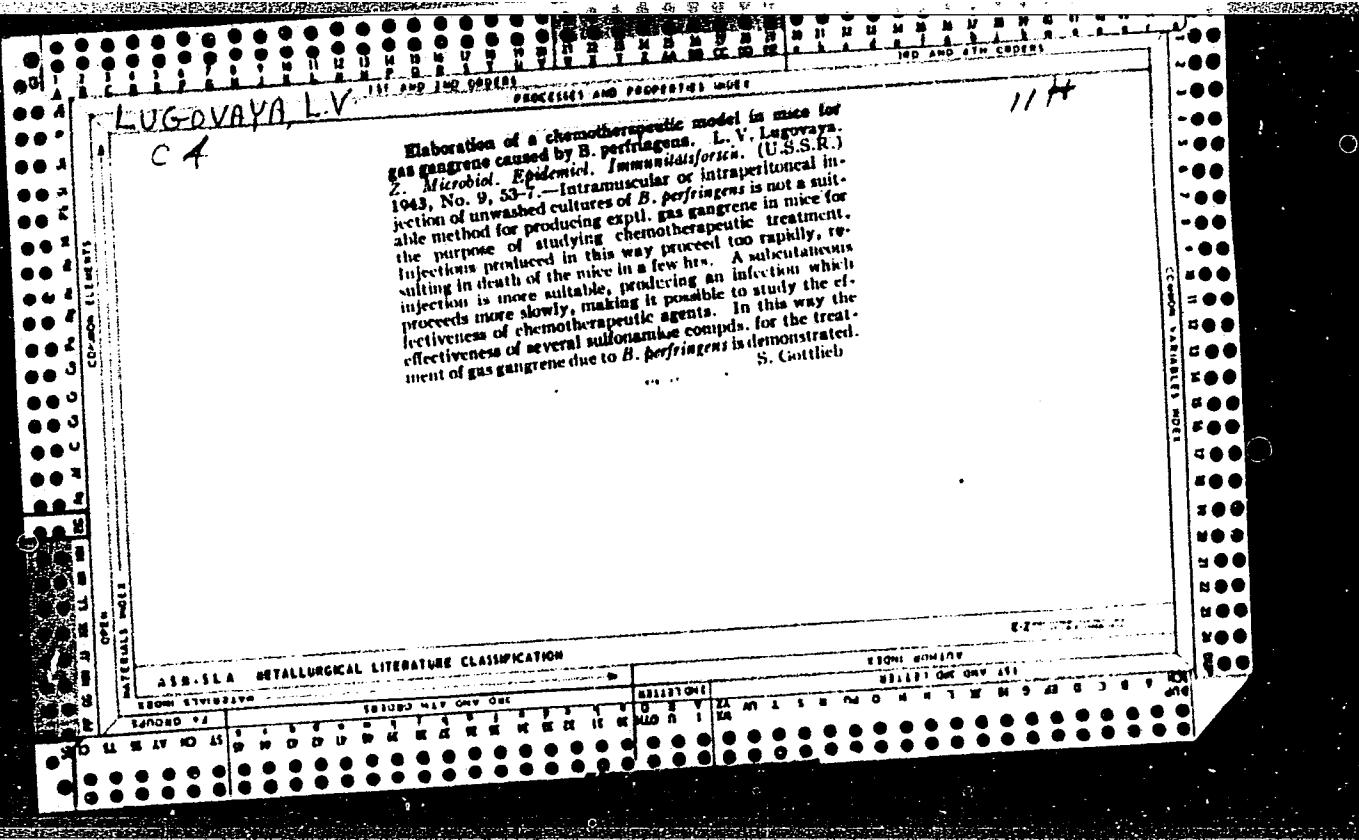
Electric slag hard facing of beaters in impact-action crushing
machines. Svar. proizv. no.3:22-25 Mr '63. (MIRA 16:3)

1. Donetskiy politekhnicheskiy institut (for Lugovaya).
2. Yasinovatskiy mashinostroitel'nyy zavod (for Moznaim).
(Hard facing) (Crushing machines)

BOL'SHAKOV, L.A., kand.tekhn.nauk; YEGNUS, R.M., inzh.; BALABANOV, A.Kh.,
inzh.; LUGOVAYA, L.N., inzh.

Using rapidly drying mixtures for the making of molds and cores
for large castings. Stal' 23 no.8:710-711 Ag '63. (MIRA 16:9)

1. Metallurgicheskiy zavod "Azovstal'."
(Sand, Foundry) (Molding (Founding))



LUGOVAYA, L.V.; SAL'NIKOVA, G.P.; KIRILLYUK, M.L.; SHAPIRO, S.L.

Investigating the toxigenicity of the diphtheria bacillus by the biological method and in vitro. Lab.delo 2 no.4:23-25 Jl-Ag '56.

(MLRA 9:10)

1. Iz otdeleniya epidemiologicheskoy bakteriologii Moskovskoy gorodskoy sanitarno-epidemiologicheskoy stantsii (glavnnyy vrach M.S. Sokolovskiy)

(DIPHTHERIA--BACTERIOLOGY)
(TOXINS AND ANTITOXINS)

LUGOVAYA, L.V.; NEYMARK, F.M.

Bacteriological diagnosis of pertussoid. Lab. delo 7 no.2:47-50
F '61. (MIRA 14:1)

1. Moskovskaya gorodskaya sanitarno-epidemiologicheskaya stantsiya
(glavnnyy vrach M.S.Sokolovskiy).
(RESPIRATORY ORGANS—DISEASES)

SAL'NIKOVA, G.P.; LUGOVAYA, L.V.

Determination of the specificity of the lines of precipitation in
an investigation of the toxigenicity of diphtheria microbes in a
dense nutrient medium. Lab. delo 7 no.5:53-56 My '61.

(MIRA 14:5)

1. Moskovskaya gorodskaya sanitarno-epidemiologicheskaya stantsiya.
(DIPHTHERIA)

KRAVCHENKO, N.A.; LUGOVAYA, L.V.; SAL'NIKOVA, G.P.

Comparative study of some methods for determining the toxigenicity
of diphtherial cultures on solid nutrient culture media. Zhur.
mikrobiol., epid. i immun. 32 no.11:33-39 N '61. (MIRA 14:11)

1. Iz Moskovskogo instituta vaktsin i syvorotok imeni Mechnikova i
Moskovskoy gorodskoy sanitarno-epidemiologicheskoy stantsii.
(CORYNEBACTERIUM DIPHTHERIAE)
(BACTERIOLOGY--CULTURES AND CULTURE MEDIA)

NEYMARK, F. M.; LUGOVAYA, L. V.; BELOVA, N. D.

Parapertussis bacillus and its significance in whooping cough.
Zhur. mikrobiol., epid. i immm. 32 no.8:49-53 Ag '61.
(MIRA 15:7)

1. Iz Moskovskoy gorodskoy sanitarno-epidemiologicheskoy stantsii.

(WHOOPING COUGH)

LUGOVAYA, L.V.

Incidence of tuberculosis infections among children in the Republic
of Daghestan. Sbor. nauch. trud. Rost. gos. med. inst. no.22:51-55
(MIRA 18:7)

1. Iz kafedry detskikh bolezney Rostovskogo meditsinskogo instituta
(zav. - prof. I.Ya. Serebriyeskiy).

MYACHIKOV, V.I., inzh.; LUGOVAYA, N.D., inzh.

Selecting an efficient scale for topographic maps during the
exploitation of deposits. [Trudy] VNIMI no.47:333-344 *62
(MIRA 17:7)

TIKHOMIROVA, N.P., kand. tekhn. nauk; LUGOVAYA, N.D., inzh.

Economic efficiency of lowering norms for prepared reserves
in mining enterprises. [Trudy] VNIMI no.47:258-263 '62
(MIRA 17:7)

TIKHOMIROVA, N.P., kand. tekhn. nauk; LUGOVAYA, N.D., inzh.; IVANOV,
A.Ya, inzh.

Control over the providing of mines with prepared reserves.
[Trudy] VNIM no.50:285-291 '63.

(MIRA 17:10)

LUGOVAYA, T., bortprovodnitsa

Profession needed by people. Grazhd. av. 21 no. 8:29 Ag *64*
(MIRA 18:4)

(LUGOVAYA, T.V.

Embryonal and early postembryonal development of (*Smaris chrysellis* C. V.) in the Black Sea. Trudy SBS 13:245-253 '60. (MIRA 14:3)
(Black Sea--Perch) (Embryology--Fishes)

BAD'YANOV, V.A.; GUR'YANOV, G.N.; MUKHARSKIY, E.D.; POLUYAN, I.G.;
LUGOVAYA, V.M.

Preparing for commercial experiment by the simultaneous development
of the oil pools of the Upper Touranian substage and the coal-
bearing series of the Lower Carboniferous in the Bavli oil field.
Nefteprom. delo no.8:11-13 '64. (MIRA 17:12)

1. Tatarskiy neftyanoy nauchno-issledovatel'skiy institut,
Bugul'ma, i Neftepromyslovoye upravleniye "Bavlyneft".

LUGOVENKO, A.

DOROSHEVSKIY, V, inzhener.; LUGOVENKO, A., inzhener.

Removing dust from tunnels underneath elevator bins, Mnk.-elev. prom.
23 no.4:26 Ap '57. (MLRA 10:5)

1. Odesskiy tekhnologicheskiy institut (for Doroshevskiy). 2. Odesskiy
mel' nichnyy kombinat №. 2. (for Lugovenko).
(Grain elevators) (Dust--Removal)

LUGOVENKO, A., inzh.

Transportation of vegetables and fruits in light containers.
Grazhd.av. 17 no.4:20 Ap '60. (MIRA 13:9)
(Farm produce--Transportation)
(Aeronautics, Commercial--Freight)

LUGOVENKO, A.

Institute of advanced practices and technical innovations at the Odessa
Grain Milling Combine no.2. Muk.-elev.prom. 26 no.1:7-8 Ja '60.
(MIRA 13:6)

1. Glavnnyy inzhener Odesskogo mel'nichnogo kombinata No.2.
(Grain milling) (Grain-handling machinery)

DELINDE, Yu.; LUGOVENKO, A.

"Work and live the communist way" by A.V.Borodin. Reviewed by
IU.Delinde, A.Lugovenko. Muk.-elev.prom. 26 no.7:29 J1 '60.
(MIRA 13:8)

1. Uchenyy sekretar' Ukrainskogo respublikanskogo pravleniya
Nauchno-tekhnicheskogo obshchestva mukomol'noy i krupyanoy promy-
shlennosti i elevatorskogo khozyaystva. (for Delinde). 2. Glavnyy
inzh. Odesskogo mel'nichnogo kombinata No.2 (for Lugovenko).
(Grain milling) (Borodin, A.V.)

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001030720007-1

LUGOVENKO, A.L.

Device assembling a helioreflector. Med. prom. 14 no. 8:49-50 Ag
'60. (MIRA 13:8)
(SOLAR ENERGY)

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001030720007-1"

ZHUKOVSKIY, B.D., kand. tekhn. nauk; ZIL'BERSHTEYN, L.I., kand. tekhn. nauk;
MIZERA, V.I., inzh.; PETRUNIN, Ye.P., inzh.; TAT'yuk, G.Z., inzh.;
Prinimali uchastiye: MATLAKHOV, L.I.; NECHIPORENKO, M.I.; DPLYX,
G.D.; GAPICH, V.I.; FATEYEVA, A.F.; DYN'KO, N.M.; LUGOVENKO, I.P.;
DEM'YANOV, B.M.; POSTIL, I.S.; BEZRODNYKH, I.Ya.

Investigating the possibility of manufacturing welded tube
blanks for cold forming. Proizv. trub no.11:67-72 '63.
(MIRA 17:11)

3(9)

AUTHORS: Alekhina, L. S., Lugovenko, S. P. SOV/50-59-8-11/19

TITLE: Experience in the Organization of Work of the Ship Network
(Opyt organizatsii raboty sudovoy seti)

PERIODICAL: Meteorologiya i gidrologiya, 1959, № 8, pp 33-34 (USSR)

ABSTRACT: The ship network of the Murmanskoye UGMS (Murmansk Hydrometeorological Service Administration) in the Barents Sea consists of 65 stations. They are installed on 8 trawlers in the northern part of the Atlantic Ocean, and on 10 hydrological ships, 31 fish-searching ships, 7 floating fishing bases, and 2 transport ships of the MMF (Ministry of the Navy of the USSR). Besides, observations are carried out from 7 stations by professional observers. Provisional stations are established on ships used for fishing from time to time. The ship stations are equipped with hydrometeorological instruments by the Navy itself via the navigation chambers, and the testing of instruments is made by the Byuro poverki UGMS (Testing Office of the Hydrometeorological Service Administration). Besides, the instruments are checked after each voyage by the inspectors. A double set of instruments is available on every ship. Telestations are installed on 12 ships. Ships return

Card 1/2

Experience in the Organization of Work of the
Ship Network

SOV/50-59-8-11/19

to harbour only after 1-5 months, and are visited by the inspector after every return. A full inspection of every ship is made 2-3 times a year, and a record is set up. The work for the ship station is controlled by the inspector also during the voyage. The inspectors are present daily at the service relief in the weather office. If errors are detected, the inspectors give instructions to the navigation observers by radio. - Reception of information from ships is not yet regular at present. The measures taken in this respect had the consequence that 48 stations are already working "well", and only 17 "satisfactorily". Early in 1958, the Upravleniye rybnoy promyshlennosti Murmanskogo sovnarkhoza (Administration of the Fishing Industry of the Murmansk sovnarkhoz) worked out a wage system for the observing personnel to encourage good observation results, and their reporting in due time to the coast.

Card 2/2

LUGOVENKO, V.N.

Method of determining local magnetic anomalies of the last order
""elementary anomalies"). Geomag. i aer. 1 no.5:820-824 S-0
'61. (MIRA 15:1)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya
radiovoln AN SSSR.

(Magnetic anomalies)

LUGOVENKO, V.N.

Graphs for determining abnormal values of the horizontal component
of the geomagnetic field and its projection on the calculated pro-
file. Geomag. i aer. no.6:1009-1014 N-D '61. (MIRA 15:2)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya
radiovoln AN SSSR.

(Magnetic prospecting)

LUGOVETS, V.A.; BATURINA, Z.V., redaktor; CHICHERIN, A.N., tekhnicheskiy
redaktor

[Sharpening the blades of paper-cutting machines] Zatochka nozhei
bumagorezal'nykh mashin. Moskva, Gos. izd-vo "Tekhnika," 1954.
102 p.
(Paper-cutting machines)

DANILYUK, V.A.; ZHUKOV, V.N.; PANOV, G.I.; KUTSENKO, G.L.; LUGOVETS,
V.A.; NEKHONOV, N.A.; PORTNYAGIN, A.I.; RECHKIN, L.A.;
SEREGIN, V.P.; SIVTSOV, V.P.; KHOLODNOV, Yu.I.; MEL'NIKOV,
V.V., kand.tekhn.nauk, red.; KOZULIN, B., red.; CHERNIKHOV, Ya.,
tekhn. red.

[Radio amateur's handbook] Spravochnik radioliubitelia. Sverdlovsk,
Sverdlovskoe knizhnoe izd-vo, 1962. 838 p.

(MIRA 15:8)

(Radio—Handbooks, manuals, etc.)

LUGOVETS, V.S., student

Bascule bridge over the bunker for unloading dump trucks. Gor. zhur.
no.11:74 N '61. (MIRA 15:2)

1. Kiyevskiy inzhenerno-stroitel'nyy institut.
(Drawbridges) (Ore handling)

LUGOVIK, B.A.; YUDIN, L.G.; KOST, A.H.

Technology of the reaction of acetone with aniline. Zhur. prikl.
khim. 38 no.1:216-220 Ja '65.
(MRA 18:3)

KADENATSIY, A. N. (Professor), LUGOVIK, B. A., GERASIMOVA, N. G. and BURIKOVA, Yu. N.
(Assistants, Omsk Veterinary Institute)

"New repellent RV-5"

Veterinariya, vol. 39, no. 8, August 1962, p. 61

KADENATSII, A.N., prof.; LUGOVIK, B.A., assistant; GERASIMOVA, N.G., assistant;
BURIKOVA, Yu.N., assistant

The new repellent RV-5. Veterinariia 39 no.8:61-63 Ag '62.
(MERA 17:12)
1. Omskiy veterinarnyy institut.

ACC NR: AP6025591

SOURCE CODE: UR/0413/66/000/013/0021/0021

INVENTOR: Kost, A. N.; Lugovik, B. A.; Yudin, L. G.

ORG: none

TITLE: Preparation of 4-aryl-1,2,3,4-tetrahydroquinoline. Class 12, No. 183208. [announced by Chemical Faculty, Moscow State University im. M. V. Lomonosov (Khimicheskly fakul'tet Moskovskogo gosudarstvennogo universiteta)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 21

TOPIC TAGS: aryl tetrahydroquinoline, preparation, dihydroquinoline, dihydroquinoline nitrogen derivative, benzene, anisole, aluminum chloride

ABSTRACT:

The proposed method for the preparation of 4-aryl-1,2,3,4-tetrahydro-quinoline is based on the reaction of the homologs of 1,2-dihydroquinoline or its N-derivatives with aromatic hydrocarbons, e.g., benzene, or anisole, in the presence of aluminum chloride. [W.A. 50; CBE No. 10]

SUB CODE: 07/ SUBM DATE: 18Jun65/

Card 1/1

UDC: 547.831.3.07

ACC NR: AP6035690 (A,N) SOURCE CODE: UR/0413/66/000/019/0033/0034

INVENTOR: Kost, A. N.; Lugovik, B. A.; Yudin, L. G.

ORG: none

TITLE: Preparation of 1-formyl-1,2,3,4-tetrahydroquinoline. Class 12,
No. 186483 [announced by Chemical Department, Moscow State University
im. M. V. Lomonosov (Khimicheskiy fakul'tet Moskovskogo gosudarstvennogo
universiteta)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19,
1966, 33-34

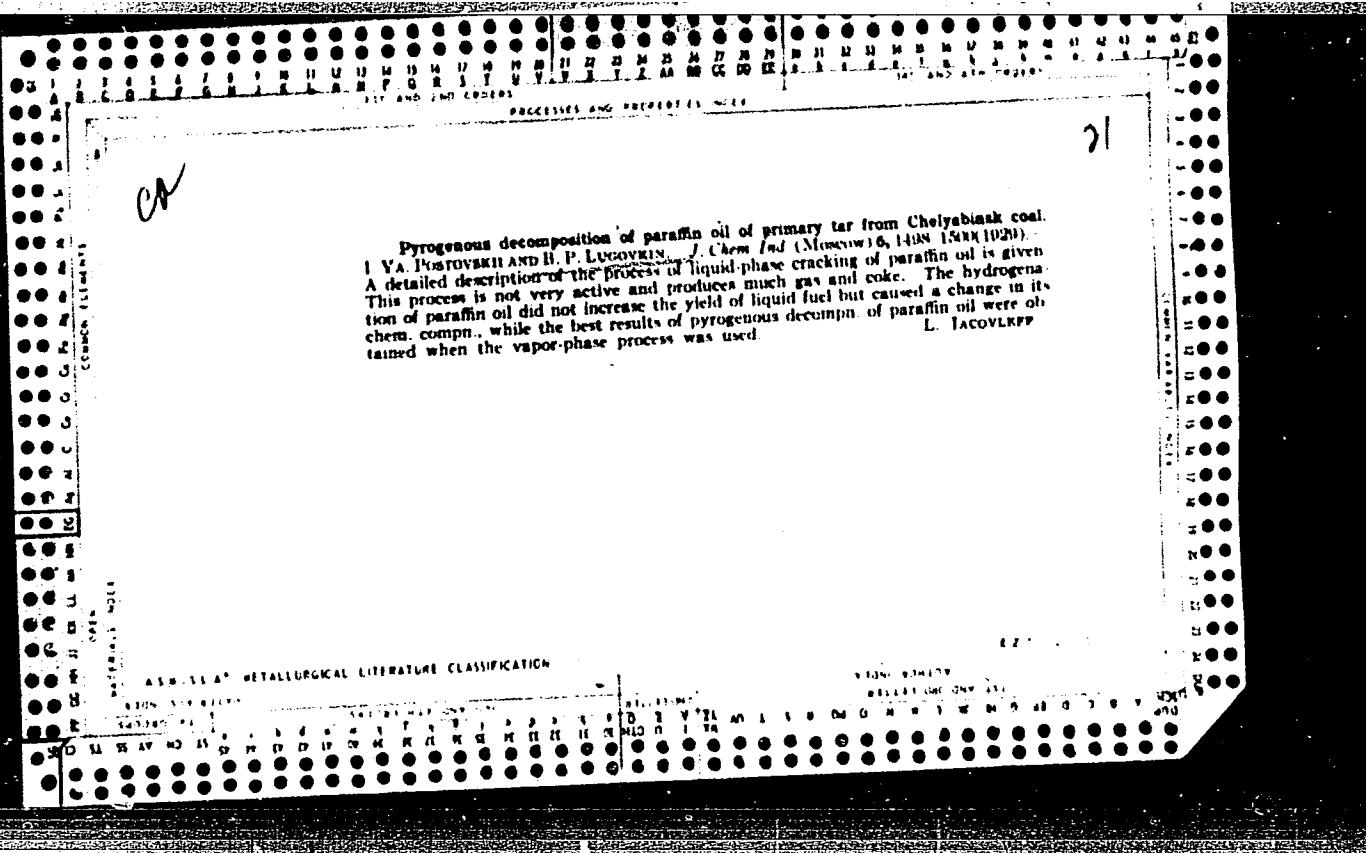
TOPIC TAGS: formyltetrahydroquinoline ~~peroxydation~~, quinoline, formic
acid

ABSTRACT: To simplify and facilitate the process of the preparation of
1-formyl-1,2,3,4-tetrahydroquinoline from formic acid and quinoline and
its homologs, the latter are treated with 77—85% formic acid vapor at
215—230°C. [W.A. 50]

SUB CODE: 07/ SUBM DATE: 13Nov65

Card 1/1

UDC: 547.831.3.07



PESCALES AND PROPERTIES INDEX

Actions of phenolic acids, esterides and metallic aluminum on polyarylcoumarins. J. T. Postovskii and N. P. Logodin. *J. Russ. Phys. Chem. Soc.*, 1922, vol. 10, p. 1000-1001. The thermal treatment of polyphenylcoumarins of anhydrous aluminum chloride and metallic aluminum was investigated to ascertain the effect of relatively strong primers, taken from brown coal, which are rich in phenolic compounds. It was found that boiling for 50 hrs. in phenol solution, the coumarin was almost entirely unchanged; a small quantity of phenoxy ether being formed. On heating under similar conditions, yielded 3 : 6-dimethoxyphenol, m. p. 200-201°, together with a little 3 : 6-dimethyl ether, b. p. 200-204°. On boiling benzoylphenol with metallic aluminum for 10 hrs., tetraphenylbenzene, p. 207-208°, and diphenylmethane, m. p. 26-27°, were obtained. Further boiling of the latter for 10 hrs. with aluminum gave only a small quantity of tetraphenylbenzene. With benzoic and benzylic acids, however, (1/10 in the presence of metallic aluminum), biphenyl, tetraphenylbenzene, m. p. 173°, and a mixture of biphenyl and benzylidene were obtained.

A30-34-4 METALLURGICAL LITERATURE CLASSIFICATION

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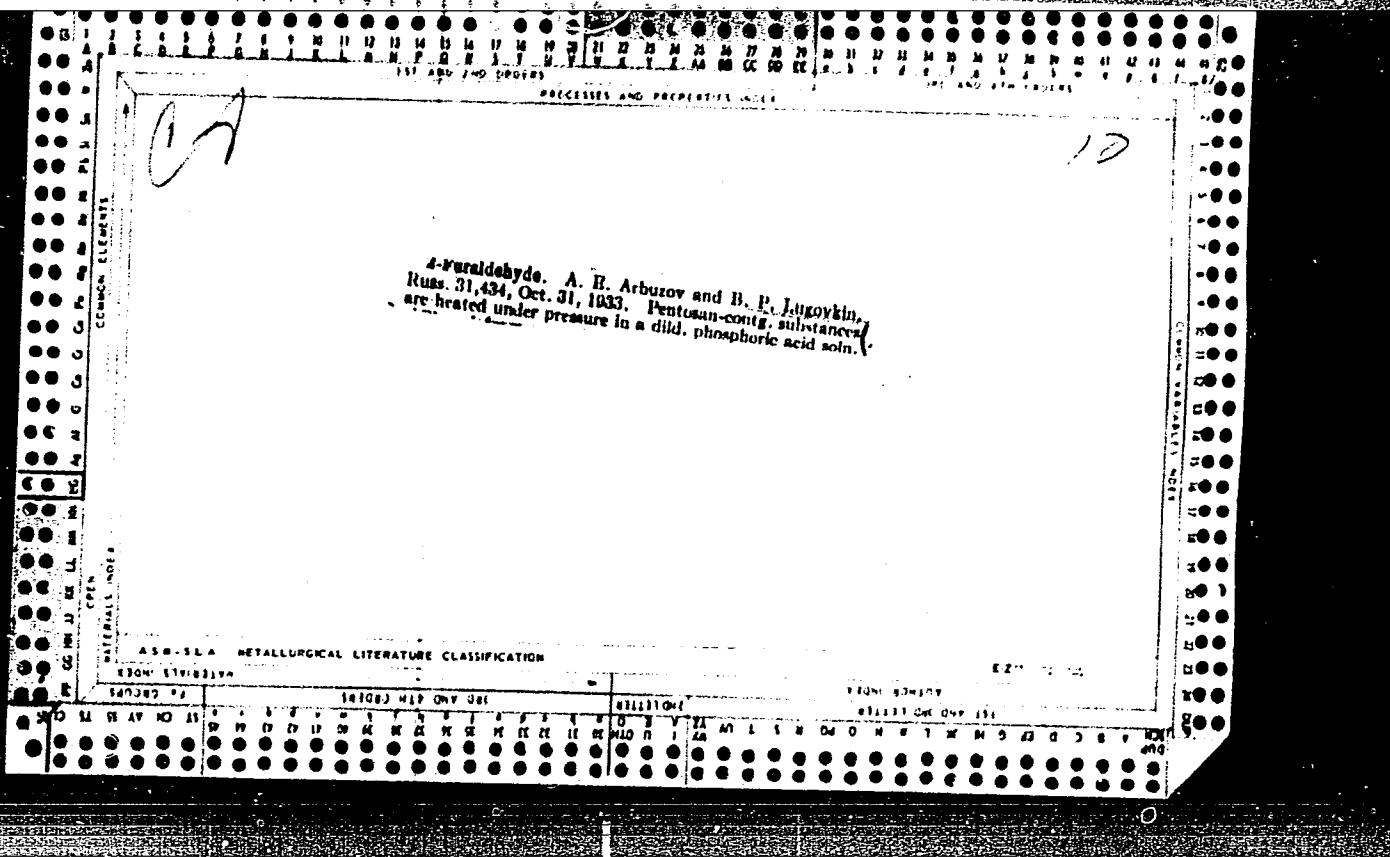
APPROVED FOR RELEASE: 04/03/2001

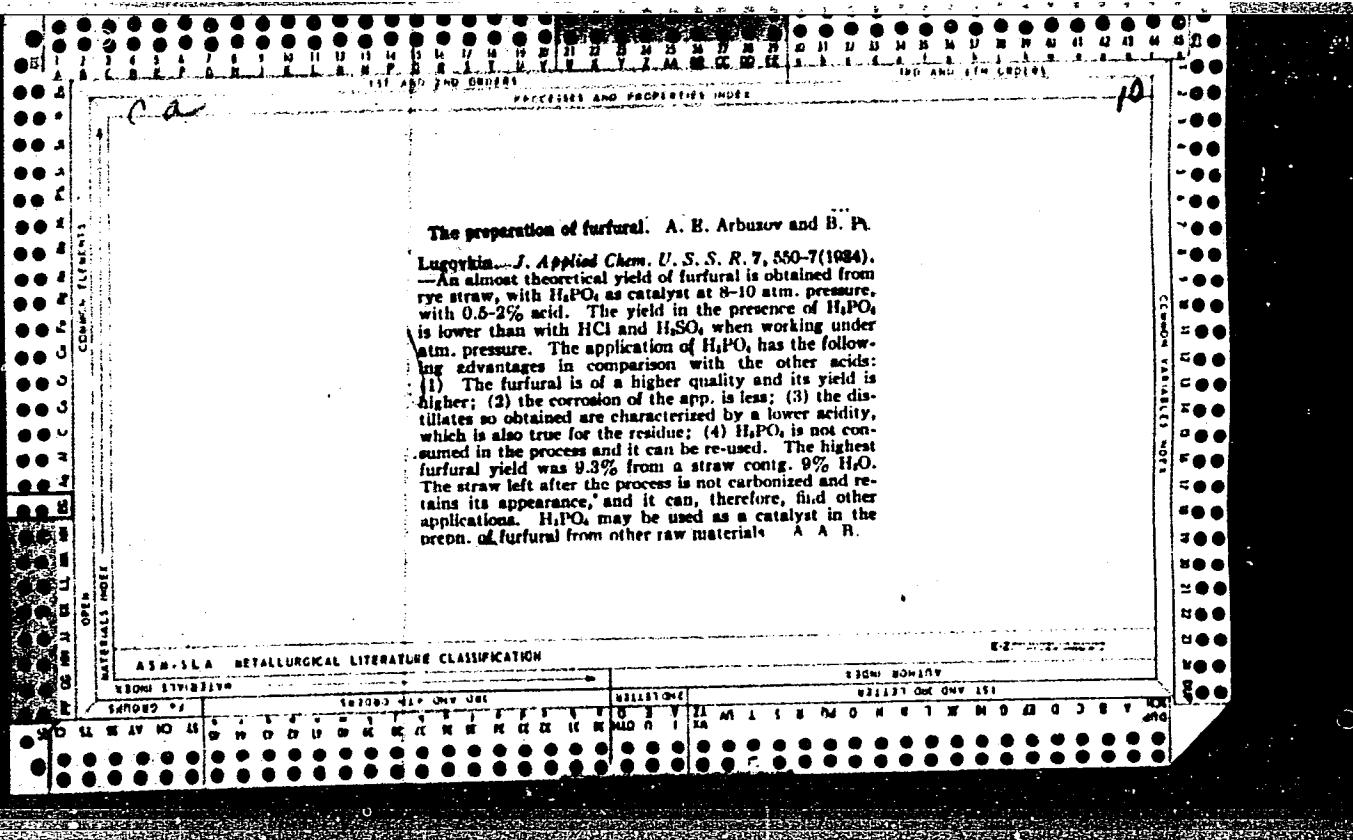
CIA-RDP86-00513R001030720007-1"

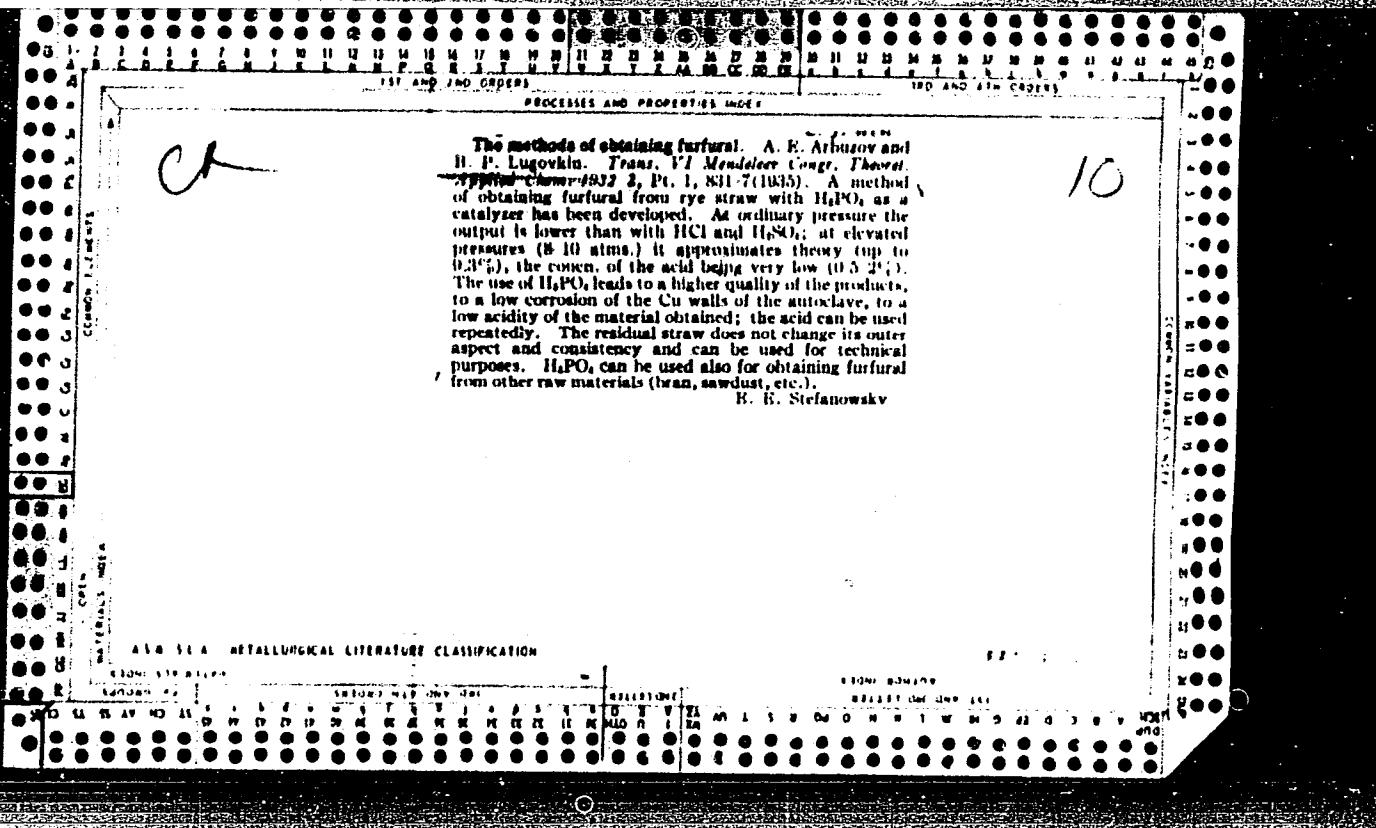
Chemistry of polyene pigments. The condensation product of benzylideneacetone, I, Y.A. POSTOVSKII AND B. P. LUGOVYKH, *J. Gen. Chem. (U.S.S.R.)* 1, 1000-11 (1931). Kuhn and Winterstein (*C. A.* 23, 4682) by aldolic condensation of crotonaldehyde with subsequent cleavage of H_2O obtained a mixt. of polyene compds. of orange and red-orange color. It was of interest to investigate a similar reaction with ketones and obtain a polyene with a ramified chain, for which PhCH:CHCOMe (I) was selected (Borsche, *C. A.* 4, 560). The empirical formula $\text{C}_{10}\text{H}_{16}\text{O}$, the aldolic nature of the condensation and the clearly polyene character of the resulting product suggest the following scheme of formation of the polyene: 3 I \longrightarrow PhCH:CHCO(OH)MeCH₂C(OH)(CH:CHPh)CH₂COCH:CHPh-2H₂O \longrightarrow PhCH:CHCOMe:CHC(=O)CH:CHPh:CHCOCH:CHPh (II). The color reactions and formation of a black bromide changing on standing to brown also show the polyene nature of II (Kuhn and Wiegand, *C. A.* 23, 3712; K. and Winterstein, *Z. physiol. Chem.* 64, 27 (1910); *C. A.* 22, 1768, 4464). Some polyenes (lycopin, carotene) absorb O of air and become decolorized, while II by gradual autoxidation is changed to a light yellow compnd. ($\text{C}_{10}\text{H}_{16}\text{O}_2$), which on standing in the dark, and particularly on being heated, first gives off and then reabsorbs the O. The labile products of the initial absorption of O by polyenes may be the cause of the physiol. action of carotene. A mixt. of 3 g. of I and 6 g. of 8% KOH was refluxed 45 min. on the water bath with frequent shaking, then the red-brown viscous mass was poured into water acidified with HCl, forming a ppt. of yellow flocks (1) and a dark brown hard mass (2); the latter was sepd. from (1), then washed with water, dried in a vacuum desiccator, extd. with a mixt. of 95% alc. and 5% CH_3Cl in a Soxhlet app. protected from the light (in the expts. the extn. was made in a CO_2 atm.), the microcryst. red product formed on the walls of the flask was filtered off and washed with alc., the operation being repeated 3 times, giving in all 60% of orange-red dichroic polyene, softening at 112° and m. 247-50°. The mother liquor of the extn. contained yellow flakes easily pdtd. with water which were not investigated. The yellow flocks (1) when extd. as above produced orange-red crystals having a m. p. identical with that of the ext. from (2). The product is dried to const. wt. by heating 25-30 hrs. at 131° in vacuo over P_2O_5 in a revolving desiccator, and is preserved in a CO_2 atm. The mol. wt. in freezing C_6H_6 was 207.5 (calcd. 403 for $\text{C}_{10}\text{H}_{16}\text{O}_2$) and 804 for $(\text{C}_{10}\text{H}_{16}\text{O}_2)_2$. Color reactions: conc. H_2SO_4 ; violet; AgNO_2 ; FeCl_3 (green); $\text{AgNO}_2 + \text{H}_2\text{S}_2\text{O}_8$; litmus; blue. C. BLANC

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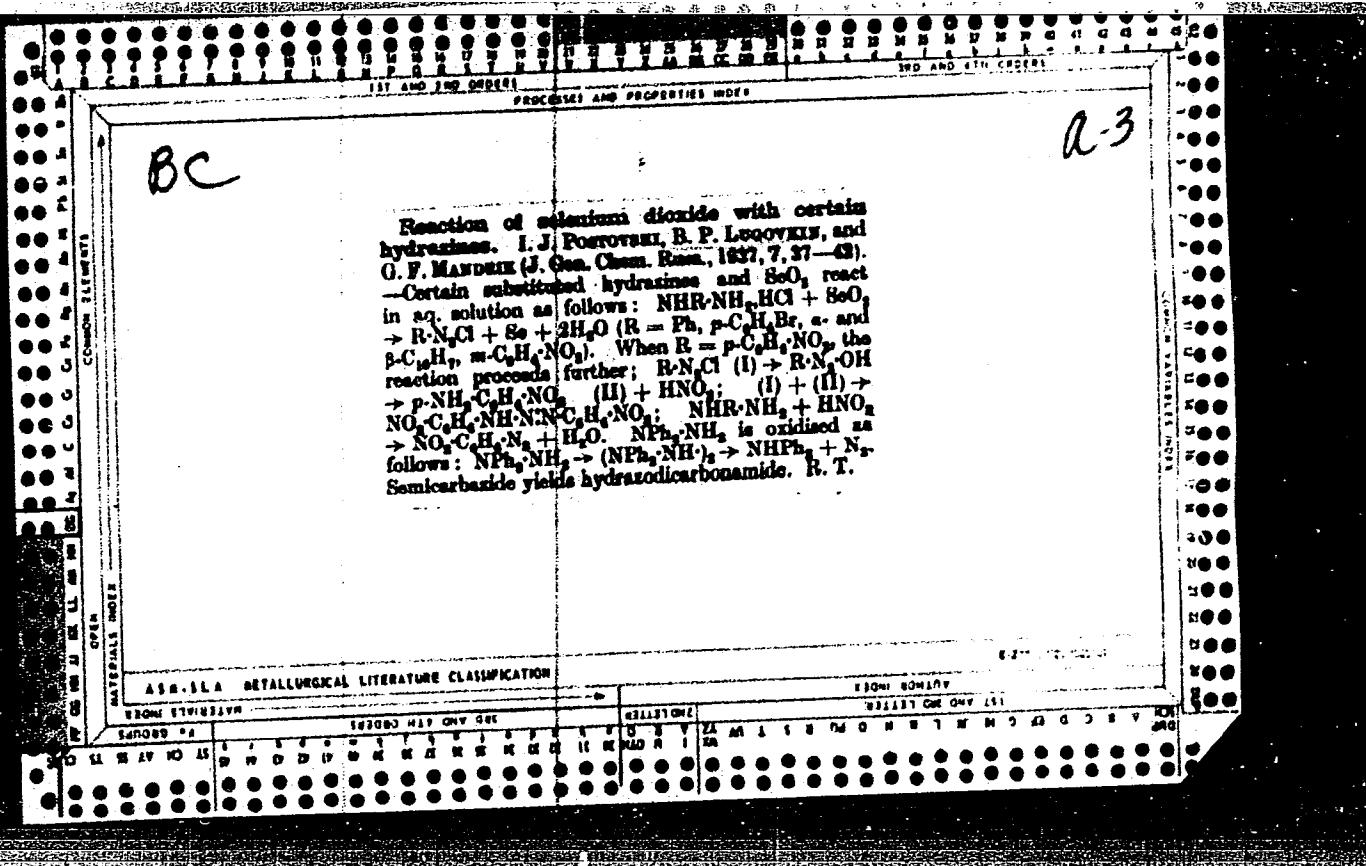




PROCESS AND PROPERTIES OF

The action of primary aromatic amines on ethyl hypophosphate. A. E. Arbusov and B. P. Litgovkin. *J. Gen. Chem. (U. S. S. R.)* 6, 394-403 (1936).—Et hypophosphate, $(\text{EtO}_2\text{P}(\text{O})_2)$; (I) (*C. A.* 27, 1587) with PhNH_2 , $\rho\text{-MeC}_6\text{H}_4\text{NH}_2$, 1,3,4-xylidine and $\beta\text{-C}_6\text{H}_5\text{NH}_2$ gave liquid and cryst. products by a vigorous exothermic reaction. The colorless cryst. products are not the expected aryl amides of $(\text{EtO}_2\text{P}(\text{O})_2)\text{OH}$ since their properties differ and the product (II) from PhNH_2 is not identical with the $(\text{EtO}_2\text{P}(\text{O})\text{NH})\text{Ph}$ of Michaelis and Schulte (*Ber.* 26, 2037; *27*, 2572). II m. 70.5-1.5°; product from $\rho\text{-MeC}_6\text{H}_4\text{NH}_2$ (III), m. 74.5°; from 1,3,4-xylidine (IV), m. 91.5°; from $\beta\text{-C}_6\text{H}_5\text{NH}_2$ (V), m. 67.8°. II, III, IV and V are sol. in Et_2O , EtOH and PhH , dissolve in H_2O at ordinary temp., without decompr., to give acid solns., and are decomposed by the moisture of the air on long standing and become purple. Analysis for C gave variable results but the values for N and P were const. and agreed with the Michaelis type formula. II is insol. by 10% KOH and gives PhNH_2HCl with AcCl . The formula $(\text{EtO}_2\text{P}(\text{O})_2\text{NR})$ is tentatively suggested for II-V. The liquid products were mixts. that contained Et_2HPO_4 . *Exptl.* To 10.86 g. I (*C. A.* 25, 3618) was added 5.7 g. dry, freshly distd. PhNH_2 . The reaction mixt. after standing *in vacuo* overnight and cooling to -10° gave 0.9 g. II (recrystn. from Et_2O) and 14.8 g. liquid products. Lewis W. Butz

ASA-SEA METALLURGICAL LITERATURE CLASSIFICATION



LUGOVKIN, B. I.

USSR/Chemistry - Phosphoric Acid
Chemistry - Ethers, Ethyl

Sep/Oct 1947

"The Action of α -Bromonitrohydrocarbons on the Ethyl Ether of Phosphorous Acid,"
A. E. Arbuzov, B. A. Arbuzov; B. I. Lugovkin, Chem Sci Res Inst imeni A. M. Butlerov,
Kazan State U, 3 pp

"Izv Akad Nauk SSSR, Otd Khim Nauk" No 5

Contains experimental data and results, and shows that in each case where bromoni-
tromethane, α -bromonitroethane and α , β -dibromophenylnitromethane acts on the
ethyl ether of phosphorous acid, the result is triethylphosphate.

FA 53T2

LUGOVKIN, B. P.

USSR/Chemistry - Acids, Manufacture of 1 Mar 1948
 Chemistry - Synthesis Organic

PA/47T12
 "Synthesis of Substituted Benzylphosphine Acids and
 Their Esters," B. P. Lugovkin, B. A. Arbuzov, Corr.
 Mem. Acad. Sci. USSR, Sci. Res. Chem. Inst. imeni A. M.
 Butlerov, Kazan State U imeni V. I. Ul'yanov-Lenin
 32 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 7

Since very diverse benzyl derivatives substituted in
 the benzene nucleus easily obtained by the reaction
 of chlorine methylation, possible with the reaction
 with full esters of phosphorous acid or dialkylphos-

47T12

USSR/Chemistry - Acids, Manufacture of 1 Mar 1948
 Organic (Contd)

phorous sodium to synthesize esters of corresponding
 substituted benzylphosphine acids. Thus with the
 action of triethylphosphite on substituted deriva-
 tives of benzyl chloride, authors synthesized
 esters of benzylphosphine acid which contains alkyl
 groups, haloids, oxygen group, nitrogen group, and
 aldehyde group in the phenyl radical.

47T12

10

Synthesis of esters of naphthylmethanephosphonic acids
B. A. Arbuzov and B. P. Lugovkan (A. M. Butlerov Chem. Inst., Kazan Univ.), *Zhur. Obshchey Khim.* (J. Gen. Chem.) **20**, 1240-51 (1950); cf. *C.A.* **42**, 7265g; Kosolapoff, *C.A.* **40**, 1443. —Addn. of 2.9 g. $(EtO)_2P$ over 15 min. to 3 g. 2-C₆H₅CH₂Br, m. 52.3° [Schulze, *Ber.* **17**, 1520 (1884)], kept at 140-50°, and heating to 170-80° gave 87.3% 2-C₆H₅CH₂PO(OEt)₂, b. 170.2°, n_D^{20} 1.5583, d₄²⁰ 1.1483, which heated 5 hrs. to 125-35° in 1:1 HCl and sealed tube gave 98.6% *free acid*, m. 229-30° (from H₂O). Addn. of 3.5 g. $(EtO)_2P$ to 1.7 g. 1,1-C₆H₄CH₂CH₂Br, m. 143.5° (Badger, *et al.*, *C.A.* **42**, 2249b), at 150-5°, followed by heating 1 hr. at 200.5°, gave 3.2 g. undistillable, viscous 1,4-C₆H₄(CH₂PO₂Et)₂, which hydrolyzed as above 8 hrs. at 130.5° gave 93.7% *free diphosphonic acid*, m. 27.8° (terade), m. 276.9° (from H₂O). Similarly, 1.2 g. $(EtO)_2P$ and 2.4 g. 5,8-bis(chloromethyl)-1,2,3,4-tetrahydrodronaphthalene gave 96.3% *tria-Et-5-N-bis(phosphonomethyl)-1,2,3,4-tetrahydronaphthalene*, b. 251-5°, m. 1.51 (6), which on hydrolysis, as above, gave 93.7% *free acid*, needles, m. 296-300° (from H₂O at 135°). The intermediate chloromethyl deriv., m. 117°, was prep'd. according to Badger, *et al* (cf. above). G. M. Kosolapoff

LUGOVKIN, B. P.

"The action of α - and γ -bromacetoacetic ester and of 2-chlorocyclohexan-one on triethyl phosphite and on the sodium compound of diethyl phosphite." B. A. Arbuzov, B. P. Lugovkin, and N. P. Bogonostseva. (p. 1468)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 19⁵⁰, Vol 20, No 8.

Pa. 173T34

LUGOVKIN, B., P.,

USER/Chemistry - Organophosphorous Com-
pounds

Jan 51

"Action of Triethylphosphite and Sodium Diethylphosphite on Certain Dihalogen Derivatives," B. A. Arbuzov, B. P. Lugovkin, Chem Inst imeni A. M. Butlerov, Kazan State U imeni V. I. Ul'yanov-Lenin

"Zhur Obshch Khim" Vol XXI, No 1, pp 99-107

Studied action of triethylphosphite and sodium diethylphosphite on dibromostyrene, dibromo- α -methylstyrene, tetramethyl- α , β -dibromoethane, ω -bromostyrene, and α -methyl- ω -bromostyrene.

173T34
USER/Chemistry - Organophosphorous Com-
pounds (Contd)

Jan 51

Obtained: ethyl ester of nitrile of phosphonocrylic acid; tetraethyl ester of α , β -diphosphonic acid- α -phenylethane; and ethyl ester of α -methyl- ω -phosphonic acid styrene.

173T34

B. P. Lugovkin

Oct 51

USSR/Chemistry - Organophosphorus
Compounds

"Synthesis of Esters of Phosphonic Acids Containing Heterocyclic Radicals. I. Synthesis of
Esters of Phosphonic Acids with the Thiazole Radical, "B. A. Arbuzov, B. P. Lugovkin, Sci
Res Chem Inst imeni A. M. Butlerov, Kaxan' Stat U imeni V. I. IL'yanov-Lenin

"Zhur Obshch Khim" Vol XXI, No 10, pp 1869-1872

By action of substituted derivs of 4-chloromethyl on triethylphosphite, synthesized for the
1st time phosphonic acid esters with thiazole ring: ethyl esters of 2-methyl-, 2-ethyl-,
and 2-methoxy-phenyl-4-methylphosphonic-acid thiazoles. These esters were saponified with HCl
to yield corresponding hydrochlorides of thiazole methyl phosphonic acids.

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NSR /Organophosphorus Compounds

Jul 52

"The Synthesis of Esters of Phosphonic Acids Containing Heterocyclic Radicals," II. Ethyl Esters of Phosphonic Acids With Oxygen-Containing Heterocyclic Radicals," B. A. Arbuzov, B. P. Lugovkin, Sci Res Chem Inst imeni A. M. Butlerov, Kazan', State U

"Zhur Obshch Khim" Vol 22, No 7, pp 1193-1198

By the action of triethylphosphite or sodium diethylphosphite on corresponding halogen derivs, representatives of esters of phosphonic acids were

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prep'd with heterocyclic radicals contg 1 or 2 oxygen atoms. Esters of phosphonic acids were synthesized which contain 3-, 5-, or 5-membered rings with a single atom of oxygen, or a 5-membered dioxolane ring with 2 atoms of oxygen. Sapon of the prep'd esters was carried out.

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Jul 52

"The Synthesis of Esters of Phosphonic Acids, Containing Heterocyclic Radicals," III. The Action of Sodium Diethyl Phosphite and Triethyl Phosphite on Some Halogen Derivatives of Pyridine and Piperidine, "B. A. Arbuzov, B. P. Lugovkin, Sci Res Chem Inst imeni A. M. Butlerov, Kazan, State U

"Zhur Obshch Khim" Vol 22, No 7, pp 1199-1204
By the action of sodium diethylphosphite on N-(Bromomethyl)-piperidine and N-(β -bromopropyl)-

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piperidine, the ethyl esters of N- β -phosphinic acid ethyl) piperidine and N- β -phosphinic acid propyl)-piperidine were synthesized. The chlorides of the corresponding acids were prep by the sapon of these esters. The action of triethylphosphite on N-(α -bromoethyl)-piperidine and N-(β -bromopropyl)-piperidine led to the formation of high-melting substances of obscure structure. α -Bromine and the α -iodopyridines did not react with sodium diethylphosphite. 4-Vinylpyridine was apparently the principal product of the reaction of sodium diethylphosphite with 2-(β -bromoethyl)-pyridine.

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Chemical Abst.
Vol. 48 No. 5
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Organic Chemistry

Synthesis of esters of phosphonic acids containing heterocyclic radicals. II. Ethyl esters of phosphonic acids with oxygen-bearing heterocyclic radicals. B. A. Arbuzov and B. P. Lugovkin (Kazan State Univ.). *J. Gen. Chem. U.S.S.R.* 22, 1241-6 (1952) (Engl. translation).—See *C.A.* 47, 4871c. III. The action of sodium diethyl phosphite and triethyl phosphite on some halogen derivatives of pyridine and piperidine. *Ibid.* 1247-61.—See *C.A.* 47, 4872e.

H. L. H.

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